

Appln. No.: 10/798,626  
Amendment Dated September 21, 2005  
Reply to Office Action of June 22, 2005

LUN-102US

**Amendments to the Drawings:**

The attached sheets of drawings replaces the original sheets.

Attachment

**Remarks/Arguments:**

Applicant is pleased to submit herewith corrected drawings, which it is respectfully submitted fully comply with the current statutes and rules of practice of the United States Patent and Trademark Office.

The Examiner has objected to claim 2 and has rejected claims 2 and 3 under 35 U.S.C. § 112, second paragraph. In view of the fact that applicant has cancelled claim 2, and has amended claim 3 to depend on amended claim 1 it is respectfully submitted that the objection to claim 2 and the rejection of claims 2 and 3 under 35 U.S.C. § 112 are moot.

Applicant has amended claim 1 to particularly point out features of the invention that are neither taught nor suggested by the prior art, namely:

- "a) preparing a stable dispersion of zero-valent iron particles having a maximum size of 10  $\mu\text{m}$  in an aqueous solution containing a dispersant being one of block or graft copolymer contain both anchoring and stabilizing chains;
- b) subjecting said suspension to one of a grinding or milling operation to produce a solution containing zero-valent iron particles having an average size less than 100 nanometers; . . ."

The Examiner has rejected claim 1 under 35 U.S.C. § 102(b) over Cantrell et al. U.S. Patent 5,857,810.

Contrary to the allegations by the Examiner Cantrell et al. do not teach or suggest preparing a stabilized colloidal suspension of zero-valent iron particles by grinding or milling larger particle sizes down to a size of less than 100 nm. Without the preparation of the particles in accord with the steps of claim 1, there can be no similarity between the particles prepared and injected in the manner taught by applicants gleaned from the Cantrell et al. reference. In view of the amendments, any similarity between Cantrell et al. and applicants invention as set forth in claim 1 would be based upon using applicants own teaching to select and interpret the reference. This is clearly contrary to existing Patent Law.

In view of the foregoing it is respectfully submitted that the rejection of claim 1, under 35 U.S.C. § 102(b) is not well taken and should be withdrawn.

The Examiner has rejected claims 4 and 7 under 35 U.S.C. § 102(b) over Cantrell et al. ('810). Applicant has amended claim 4 to positively recite the fact that the colloidal suspension of zero-valent iron particles are stabilized by one of a block or graft copolymer containing both anchoring and stabilizing chains. Stabilization of the colloidal particles in the manner taught by applicant is neither taught nor suggested by Cantrell et al. Furthermore, Cantrell et al. does not define the size of the particles in the manner defined by applicant

As to claim 7, it depends from amended claim 4. It is submitted Claim 4 is allowable, therefore Claim 7, depending from an allowable claim, and further limiting the claim on which it depends should also be allowable.

In view of the foregoing it is respectfully submitted that the rejection of claims 4 and 7 under 35 U.S.C. § 102(b) is not well taken and should be withdrawn.

The Examiner has rejected claim 8 under 35 U.S.C. § 103(a) over Noland et al. U.S. Patent 6,787,034 in view of Ponder et al. U.S. Patent 6,242,663. As a general comment none of the references teach or suggest preparation of colloidal particles by a grinding or milling operation of suspension of larger particles. In point of fact Ponder et al. only use chemical precipitation methods for preparation of their particles.

Claim 8 has been amended to incorporate the subject matter of claim 9 which the Examiner has considered to be allowable.

Therefore, it is respectfully submitted that the rejection of claim 8 under 35 U.S.C. § 103(a) is not well taken and should be withdrawn.

In accord with the Examiner's helpful suggestion claims 5, 6 and 9-12 have been amended so that they include the limitations of the base claim. Therefore, it is respectfully submitted that claim 4 is a combination of claim 4 and 5, thus amended claim 4 is allowable. Claim 6, which is dependent on amended claim 4, and claim 8, which is a combination of claims 8 and 9 and claims 10-12 dependent on claim 8 are also amended to become allowable.

In view of the foregoing amendments and arguments it is respectfully submitted that the above-identified application as amended is in condition for allowance and a notice to that effect is earnestly solicited.

Respectfully submitted,

Paul F. Prestia, Reg. No. 23,031  
James C. Simmons, Reg. No. 24,842  
Attorneys for Applicant

— [View profile](#)

JCS/mc

Attachments: Figures 1-12 (12 sheets)

Dated: September 21, 2005

P.O. Box 980  
Valley Forge, PA 19482  
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

21 SEPTEMBER 2005

James C. Jamison